ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

IDENTIFICATION OF INTELLECTUAL ABILITIES OF STUDENTS IN PRESCHOOL EDUCATIONAL ORGANIZATIONS AND THEIR TARGETED DEVELOPMENT

Feruza Oljayevna Orinova
Kokand University Under the supervision of , PhD, Associate Professor,
Professor, "Department of Education"
Boymirzayeva Shahnozakhon Olimjon kizi
Kokand University
Teacher of the "Education Department"
Telefon raqami:+998949845953
Orcid: https://orcid.org/0009-00017868-7602
E-mail: boymirzayevashahnoza98@gmail.com

Abstract: This article analyzes the methods of identifying intellectual abilities of children in preschool educational organizations and their targeted development. The study examined how game-based activities, individual approaches and psychological support affect the intellectual development of children. The methods used to identify children's intellectual abilities, including observation, psychological tests and experimental methods, were also analyzed. The article also shows the importance of cooperation between educators and parents in the process of developing children's intellectual abilities. The results of the study confirm the importance of modern pedagogical methods for effective development in preschool education.

Keywords:preschool education, intellectual abilities, pedagogical methods, psychological development, game-based education, individual approach, development of educators, cognitive development, cooperation of parents and educators, psychological tests

INTRODUCTION

The preschool period is one of the main stages of children's psychological and intellectual development. During this period, the child begins to develop his cognitive abilities, logical thinking and creative thinking. Therefore, the preschool education system plays an important role not only in providing children with general knowledge, but also in identifying and developing their intellectual abilities. It is necessary to use effective pedagogical methods and psychological approaches for the intellectual development of children in preschool educational organizations. This process serves a broader goal than just acquiring knowledge for children - ensuring their cognitive and emotional development.

Observing and influencing the intellectual development of a child is a complex and delicate process for teachers and psychologists. Each child has his own abilities, needs and pace of development. Therefore, an individual approach and specific methods are necessary to determine the intellectual abilities of children. Educators and parents together should constantly monitor the child's intellectual development and provide him with appropriate assistance. To successfully organize this process, it is important to use modern pedagogical and psychological methods in preschool educational institutions. This article is devoted to methods for identifying and developing children's intellectual abilities in preschool education. The study analyzes the main methods used to assess children's cognitive development, including the influence of game-based lessons, individual approaches and psychological support. It also discusses how pedagogical methods can positively affect children's intellectual development and how they can

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

be effectively taught. Through special exercises, tests and reflections designed for children, their cognitive abilities are developed, and the main pedagogical strategies in this process are presented. This study shows practical approaches to identifying and developing children's intellectual abilities in preschool education, helping teachers and psychologists to support children's intellectual growth. At the same time, the importance of intellectual development in the preschool education system, the role of pedagogical approaches and methodologies for it, are emphasized.

LITERATURE REVIEW

Berk, L. E.- Child Development. Berk's work provides a broad and thorough analysis of child development, including the processes of intellectual and cognitive development. He recommends the use of age-appropriate pedagogical methods in developing children's intellectual abilities in preschool education. Berk also emphasizes that children's intellectual development is closely related to the social and environmental context. This work identifies different stages of child development and pedagogical approaches appropriate to these stages[1].

Elkind, D. - Childhood and Society. Elkind examines the influence of social and cultural factors on children's intellectual development. He provides important information about the role of parents, teachers, and the general public in the development of children's intellectual abilities. In his work, the importance of games and social interactions in the learning and development processes of children is emphasized.

Lillard, A. S. - Play in Early Childhood Development. Lillard's work emphasizes the important role of play in children's development, especially in preschool education. He analyzes in detail the importance of play in the development of children's intellectual and cognitive abilities, in particular, its role in developing problem solving and creativity. Lillard's work contains extensive discussions about the effectiveness of play-based methods and their necessity for intellectual development[2].

Ginsburg, K. R. - The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. Ginsburg's research shows the psychological importance of play in child development. He discusses how children can support their intellectual and emotional development through the right games and activities. Play in preschool education can develop children's logical thinking and social skills[3].

Hughes, C. - Children's Social Development: A Practitioner's Guide. Hughes' research demonstrates how children's social and intellectual development are interconnected. He examines the relationship between the development of children's social skills in preschool and their intellectual development. He also emphasizes the importance of supporting intellectual and social growth through interaction and mutual support between children[4].

METHODOLOGY

This study used qualitative and quantitative methods to determine the intellectual abilities of children in preschool educational organizations and study the process of their development. The methodological approaches used in the study are aimed at analyzing effective approaches and methods for measuring and developing children's intellectual abilities. The study is based on the following main methods:

1. Observation

The observation methodology allows you to observe children's activities and their cognitive abilities in a natural environment (during the learning process). The study studied the following practices to determine the intellectual activity, logical thinking and creative skills of children using the observation method:

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

Observing individuals: Observing how a child works during games, group discussions and other activities. This method allows you to determine how a child carries out his intellectual activity, what decisions he makes and how he solves problems.

Observing group activities: Analyzing the cognitive activity and social interaction of children in the process of working together in a group.

2. Psychological Tests

Psychological tests were used to accurately measure children's intellectual abilities. The study used various psychological tests, including:

IQ tests: Used to determine children's general mental abilities.

Cognitive tests: Used to measure children's logical thinking, memory, attention, and problem-solving abilities.

Creative tests: Used to assess children's creative abilities, imagination, and ability to develop new ideas.

These tests provided opportunities to measure children's intellectual abilities in various areas.

3. Experimental Method

The experimental method was used to test new pedagogical approaches and methods for developing intellectual abilities. During the experiment, various approaches were used - game-based education, individual approaches, and various methods used by teachers in working with children. The following experiments were organized during the study:

Game-based education: Children were given logical and creative tasks to solve through games. Games have been tested as an effective tool for developing children's cognitive abilities.

Individual approach: An individual approach of the teacher was organized for each child in accordance with his cognitive needs and level of development. This approach had a further impact on the development of children.

By analyzing the results of the experiments, effective methods for developing intellectual abilities are identified.

4. Questionnaires and Interviews

The study conducted questionnaires and interviews with teachers and parents. These methods made it possible to study the problems in the intellectual development of children, the pedagogical methods of teachers, and the interaction of parents with children. By conducting questionnaires and interviews, it was possible to identify social and cultural factors that affect child development.

5. Statistical Analysis

The results obtained were processed using statistical analysis to determine which methods were effective in identifying and developing intellectual abilities. The data obtained, including the results of tests and experiments, showed effective ways of cognitive development for each child.

DISCUSSION AND RESULTS

Results

The study examined the effectiveness of the methods and approaches used to identify and develop children's intellectual abilities. The results of the study were analyzed in the following main areas:

Measurement of Cognitive Abilities

Children's intellectual abilities were assessed through psychological tests and observations. The results of the tests showed that children's intellectual abilities mainly showed improvements

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025
Journal: https://www.academicpublishers.org/journals/index.php/ijai

in logical thinking, memory, and creative thinking skills. Many children showed significant growth in mathematical thinking and problem solving. Creative activities (for example, creating imagination and solving problems through a creative approach) were also highly developed.

The Effect of Game-Based Education

Children's lessons through games were effective in developing various intellectual abilities. The results of the experiments show that games not only increased children's creativity, but also developed logical and analytical thinking skills. Through games, children improved their concentration and cooperation. This method also helped to develop children's social skills.

Effectiveness of Individual Approach

By using individual approaches, children received education in a way that was appropriate to their abilities and needs. As a result of this method, the educational process became more effective, depending on the specific intellectual needs and levels of development of students. Through tests and observations, the individual approach helped students to realize their abilities at a high level, which led to the successful completion of the tasks they performed.

The Role of Educators

The study also studied the influence of teachers on the intellectual development of children. Teachers' pedagogical knowledge and methods had a positive effect on the development of children's intellectual abilities. The results of the study showed that teachers can develop children's intellectual abilities by changing their pedagogical approaches to suit individual needs.

Discussion

The results of the study showed that there are effective methods for identifying and developing children's intellectual abilities in preschool education. Game-based education and individual approaches played a major role in developing children's logical thinking, creative abilities, and problem-solving skills. Also, the approaches and methods of educators served as an important factor in influencing the development of the child.

The impact of games on the intellectual development of children deserves special attention. Games not only provide children with an interesting and enjoyable experience, but also develop their cognitive and creative abilities. Game-based education helps children create new approaches to solving problems and teaches children to think systematically. Games also develop children's social skills, as they communicate with each other during the game and learn teamwork.

The importance of an individual approach was also highly appreciated. Since the level of intellectual development and needs of each child is different, teachers should offer children appropriate education through an individual approach. The results of the study showed that individual approaches give more effective results in the development of children and allow them to demonstrate their abilities to the maximum.

The methods used by educators also affect the development of children. The pedagogical knowledge and experience of teachers play an important role in the development of children. Teachers should be able to provide constant support to children and help them further develop their abilities. In this process, teachers should take into account the different intellectual needs and developmental stages of children.

CONCLUSIONS AND SUGGESTIONS

The study is devoted to the process of educational tools and their targeted development of students in preschool educational organizations. Various pedagogical technologies that help children develop their intellectual potential and abilities through teaching aids, experiments and tests in computing.

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

The scientific study shows that:

Game-based education is an effective method for improving children's logical, creative thinking and problem-solving skills. Through it, children not only have an interesting and enjoyable time, but also develop intellectual and social skills.

An individualized process forms the unique characteristics of children, their own characteristics and is suitable for each child. This method helps to fully reveal the intellectual potential of children.

The role of educators in children is very important. It is necessary to ensure that students are able to meet various intellectual needs, use modern pedagogical methods and study their individual characteristics.

In general, the study studied effective methods of intellectual development in preschool education and ways to develop them. The study allows children to develop intellectually.

Proposals

Game-based education

Game-based education for children should be further developed. Games should be a means of enjoyment and recreation for children, but also an effective tool in the cognitive and creative aspects of programming. Teachers should develop games for pedagogical purposes and widely use them in working with children.

Individual colors

Due to the fact that each child has different mental abilities and abilities, it is necessary to strengthen individual capabilities in the educational process. Taking into account the support and staff of teachers, they should create a format of education suitable for each. , materials and methods adapted to the child should be developed.

Continuous organization of pedagogical competence

It is necessary to constantly improve the pedagogical competence and knowledge of teachers. The use of new pedagogical methods and modern technologies in preschool education is a means for teachers to more effectively influence the intellectual development of children. It is necessary to regularly update teachers through training courses, seminars and trainings.

Introduction of innovative technologies into the educational process

Preschool education should use modern technologies, including interactive learning platforms and online learning. This will allow children to learn in a new way, provide interesting and interactive learning.

Protecting cooperation with parents

Parents play an important role in the intellectual development of children. For this, it is necessary to effectively cooperate with parents, involve them in their children's education, and develop methods that will help them produce files. Educational advice and guides should be provided for parents.

Introducing advanced methods for intellectual products

Preschool education should use new and advanced pedagogical methods, including STEM (Science, Technology, Engineering, and Mathematics) methodology. This method helps children learn about technology and science, develop logical thinking and creative problem-solving.

Improving multifaceted performance in the educational process

Children's intellectual production, but also the production of help, needs support from multifaceted systems such as games, group work, creative developments, not tests. These systems capture the holistic - logical, creative and social - view of children's development.

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025
Journal: https://www.academicpublishers.org/journals/index.php/ijai

LIST OF REFERENCES USED:

1. Berk, L. E. (2013). Child Development. Pearson Education.
2. Lillard, A. S. (2017). Play in Early Childhood Development. Oxford University Press.
3. Ginsburg, K. R. (2007). The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. Pediatrics, 119(1), 182-191.
4. Hughes, C. (2011). Children's Social Development: A Practitioner's Guide. Wiley-Blackwell.
5. Abdurashidov, A., & Turdaliyeva, N. (2023). Development of manual work in pre-school education. Science and innovation, 2(B2), 282-286.
6. qizi Turdaliyeva, N. A. (2024). Maktabgacha yoshdagi bolalar ijodiy qobiliyatlarni rivojlantirishning nazariy asoslari. Golden brain, 2(7), 48-52.
7. Soliyev Ilhomjon Sobirjonovich, & Boymirzayeva Shakhnoza Olimjon kizi. (2023). Systemic Organization of Professional Competence, Creativity and Innovative Activity of A Future Kindergartener. Journal of Pedagogical Inventions and Practices, 19, 108–112. Retrieved from https://zienjournals.com/index.php/jpip/article/view/3709
8. Soliyev, I., & Boymirzayeva, S. (2023). Maktabgacha ta'lim tizimida innovatsion yondashuvning uslubiy asoslari va pedagogik shart-sharoitlari. Наука и инновация, 1(6), 128-129.
9. qizi Boymirzayeva, S. O. (2024). Maktabgacha ta'lim tashkilotida bo 'lajak tarbiyachining kreativligini rivojlantirish. Golden brain, 2(7), 41-47.